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Examiner: Theresa T. Snider
Group Art Unit: 1744

IN THE SPECIFICATION, KINDLY AMEND THE SPECIFICATION AS FOLLOWS:

Please make the following changes in specification.

Please replace paragraph [0019] with the following amended paragraph:

[0019] Referring to FIG. 2, cyclonic dirt separator and dirt cup assembly 540 according to the invention comprises a cylindrical cyclone separator 550 having an upper wall 142 and a sidewall 144, the sidewall 144 terminating in a lower offset lip 146. An annular collar 148 depends from upper wall 142, the collar 148 being centered in the cylindrical cyclone separator 550. An exhaust outlet 154 in the upper wall 142 and within the annular collar 148 is fluidly connected with a suction source (see FIG. 3). Sidewall 144 further includes a tangential air inlet 152 aligned proximate the upper wall 142 for generating a tangential airflow in the separator 550 parallel to the upper wall 142.

Please replace paragraph [0027] with the following amended paragraph:

[0027] The dirt cup 560 further includes a pair of fins 586, 588 affixed to and contiguous with sidewall 584. Fins 586, 588 are generally rectangular in cross-section, in plan view, projecting inwardly from sidewall 584 toward a center of dirt cup 560. The distance fins 586, 588 project from sidewall 584 can range from 2% to 10% of the radius, but is preferably 3% to 6% of the radius, and optimally 4% of the radius of the dirt cup 560. Fins 586, 588 extend generally upwardly from bottom wall 582 of dirt cup 560. In the preferred embodiment, fins 586, 588 are perpendicular to bottom wall 582 and extend approximately one-half of the height of dirt cup 560, although fins 586, 588 can vary in height from 40% to 60% of the distance from bottom wall 582 to separator plate 158 and still be effective. Also in the preferred embodiment, fins 586, 588 are generally aligned in the direction of inlet airflow entering cyclone chamber 150 through air inlet 152. As shown in FIG. 235, fins 586, 588 are arranged with respect to a radial 590 perpendicular to the tangential alignment of inlet 152, with fin 586 angularly displaced from radial 590 by angle α and fin 588 displaced from radial 590 by angle β . These angles can vary over a range of about 10° to 45°, and preferably in the range of 15° to 25°. It has been found that

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a satisfactory placement of the fins results when the angle α is about 19° to 20° and the angle β is about 19° to 20° .

Please replace paragraph [0030] with the following amended paragraph:

[0030] Dirt cup 560 is removably connected to separator 550. Dirt cup 560 is generally vertically adjustable relative to cyclone separator 550, such as by a cam mechanism on a vacuum cleaner, so that it can be raised into an engaged and operative position underneath the cyclone separator 550. Upper edge of sidewall 584 is received within offset lip 146, which prevents dirt cup 560 from being dislodged from cyclone separator 550. To remove dirt cup 560 from cyclone separator 550, such as to discard accumulated dirt, dirt cup 560 is displaced downwardly from cyclone separator 550. Once ~~disengage~~disengaged from offset lip 146, dirt cup 560 can be removed from separator 550.